Rotosolver® II

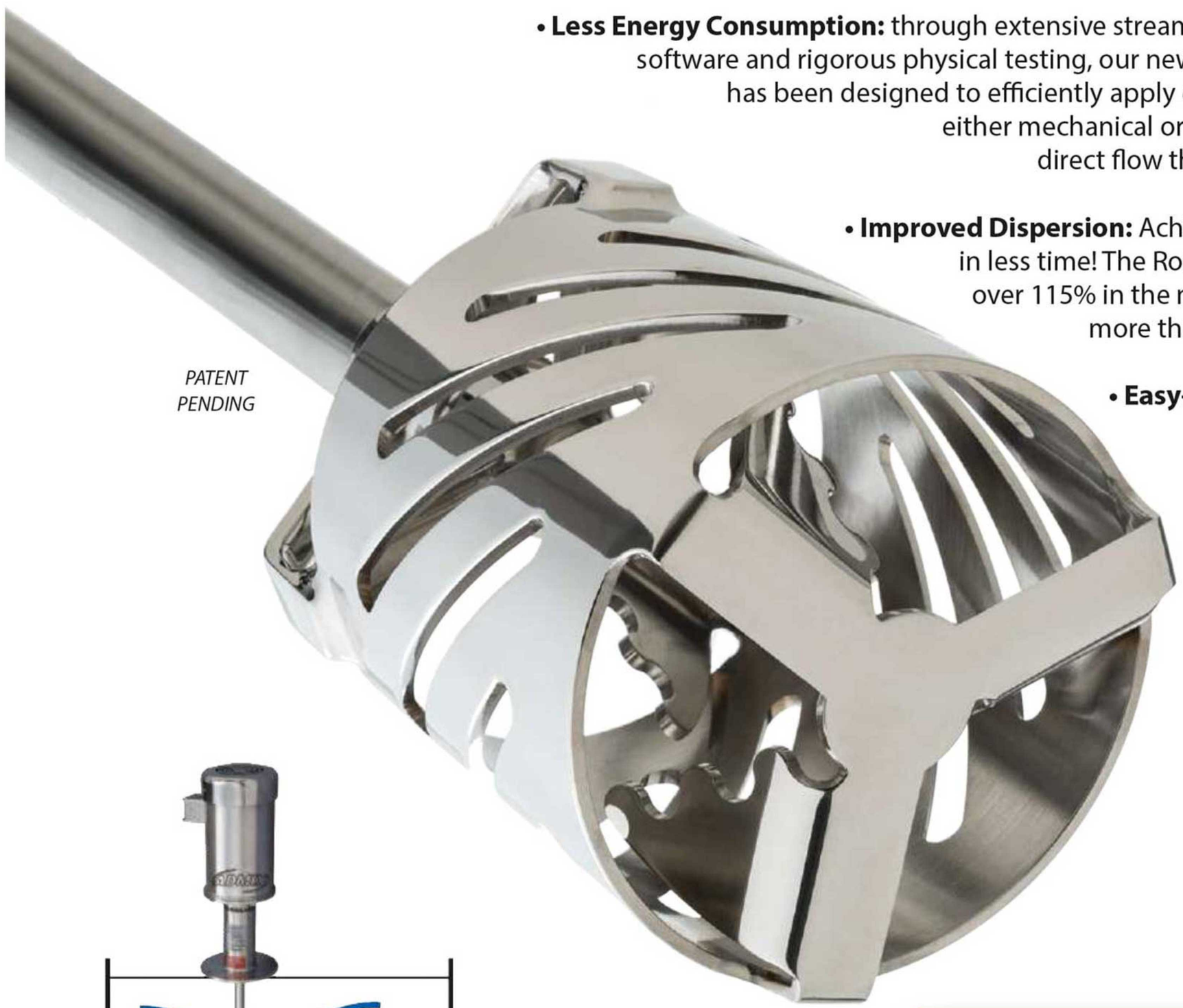
The Ultimate Energy Saver High Shear Mixer

ADMIX®

Rotosolver II delivers performance & efficiency

Admix's Rotosolver high shear mixer has been well known as an industry leader since 1993. Our goal was to enhance our existing Rotosolver design and make it even better, offering processors a significant improvement in performance and efficiency.

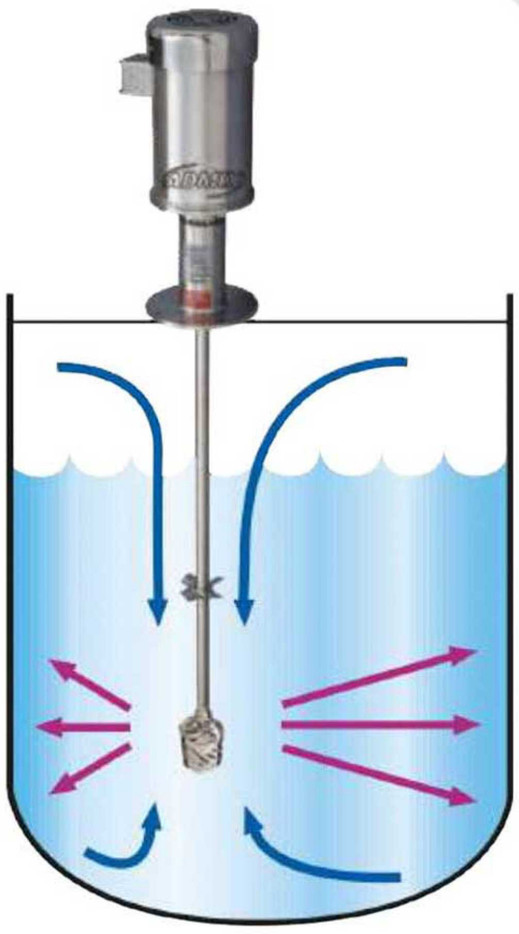
- **Less Energy Consumption:** through extensive streamlining, utilizing the latest CFD software and rigorous physical testing, our new Rotosolver II mixing impeller has been designed to efficiently apply every bit of energy to produce either mechanical or hydraulic shear and optimally direct flow that is beneficial to the process.
- **Improved Dispersion:** Achieve the same or better results in less time! The Rotosolver II offers an increase of over 115% in the mechanical high shear surface, more than double the shearing edges.
- **Easy-to-Clean Design:** We opened up the mixing chamber to ensure that conventional CIP procedures provide maximum cleanability.



PATENT PENDING

USDA

3 #73-01



Flow pattern:
Blue arrows = flow into the mixing head

Purple arrows = expulsion from the mixing head

- Reduce energy consumption up to 30%
- Increase overall shear rates
- Reduce batch times for increased capacity
- Improved cleanability
- Retrofit available for existing installations
- Wet out & disperse Carbopol®, Methocel®, Opadry®, Avicel®, CMC, xanthan and guar gum, soy proteins, starches, pectin, carrageenan and other "tough" hydrocolloids and ingredients

www.admix.com **Your Mixing Technology Partner**

Typical Selection of a Rotosolver

Models and Specifications

The following table lists each of our standard Rotosolver models, along with typical working volumes based on the specific design criteria listed below. All selections are based on a moderate level of mixing (mixing intensity of 7.0) and a specific gravity of 1.0.

Note: Higher viscosities, greater mixing intensities, non-standard tank geometries or a specific gravity greater than 1.0 may require a different selection than shown. Different ingredients may require higher tip speeds for best performance and a different mixer selection may also be necessary. Please contact Admix, Inc. for an Applications Engineer to determine the optimum mixer configuration.

Rotosolver Model	Maximum Batch @ 100 cP(1) (Volume in gal)	Maximum Batch @1,000 cP(2) (Volume in gal)	Standard HP	Speed (RPM)	Mixing Head Diameter (inches)
RS-02	10	5	1	3600	2.4
80RS70	250	65	5	3600	2.75
90RS70	250	65	5	3600	2.75
100RS88	650	175	10	3600	3.5
112RS88	650	175	10	3600	3.5
132RS101	850	225	15	3600	4.0
132RS133	1250	300	10	1800	5.25
160RS159	2500	600	20	1800	6.25
180RS175	4000	1000	30	1800	6.7
200RS200	4000	1000	20	1200	7.9
225RS225	5000	1250	30	1200	8.9
250RS250	6250	1500	50	1200	9.8
315RS300	8000	2500	50	900	11.8
355RS300	8000	2500	60	900	11.8
400RS300	10000	2500	75	900	11.8

(1) **Maximum batch size (100 cP)** with a standard upper foil based on 100 cP and 1.0 specific gravity.

(2) **Maximum batch size (1000 cP)** with a standard upper foil based on 1000 cP and 1.0 specific gravity.

Call us today at 800-466-2369 for more information!

EMPLOYEE OWNED ...
CUSTOMER FOCUSED

Rotosolver II: How It Works

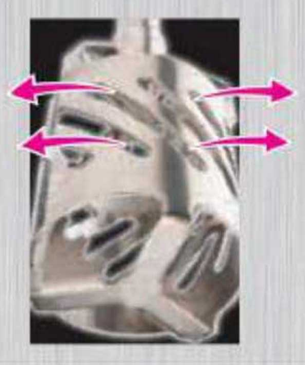
The Rotosolver II combines the shearing capabilities of a high speed toothed rotor and a slotted stator with the additional advantage of high flow / circulation from the dual rotor blades. This unique mixing head design provides a four-stage mixing action:

1. Product flow is drawn into the mixing head from above and below. As flow is drawn in, materials and powders pulled down from the top (typically the toughest to disperse) are immediately exposed to two (2) additional mechanical shear zones and one (1) new shear zone from the bottom. These materials are then immediately mechanically ripped by the teeth on the rotor's discharge at the top and bottom of the stator.

2. The two high-velocity, counter-current streams converge within the stator causing high turbulence and hydraulic shear, without momentum loss from obstructions within the stator.

3. Centrifugal pressure forces material to the periphery of the stator where it is subjected to further mechanical shear as material passes through the sharpened edges of the expanded slots in the stator.

4. The high velocity radial discharge combines with slower moving tank flow for additional hydraulic shear and circulation.



US - BM-3/18